

PRODUCT DATA SHEET

SikaForce®-420 L45

Non sagging assembly adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	Component A SikaForce®-420 L45	Component B SikaForce®-010
Chemical base	Polyols	Isocyanate derivatives
Color (CQP001-1)	White	Brown
	mixed	White
Cure mechanism	Polyaddition	
Density (uncured)	1.62 g/cm ³	1.23 g/cm ³
	mixed (calculated)	1.54 g/cm ³
Solid content	100 %	100 %
Mixing ratio	by volume 100 : 25	
	by weight 100 : 19	
Viscosity (CQP029-4)	Rheometer, PP25, shear rate 10 s ⁻¹ , d=1 mm	85 000 mPa·s ^A
	mixed	40 000 mPa·s ^A
Application temperature	15 – 30 °C	
Pot-life (CQP536-3)	45 minutes ^A	
Open time (CQP526-3)	90 minutes ^A	
Press time (CQP590-4)	1 MPa	170 minutes ^A
Shore D hardness (CQP023-1 / ISO 48-4)	77 ^B	
Tensile strength (CQP543-1 / ISO 527)	16 MPa ^B	
Elongation at break (CQP543-1 / ISO 527)	15 % ^B	
Tensile lap-shear strength (CQP546-1 / ISO 4587)	11 MPa ^B	
Shelf life	12 months	9 months

CQP = Corporate Quality Procedure

^{A)} 23 °C / 50 % r.h.^{B)} 12 weeks at 23 °C / 50 % r.h.**DESCRIPTION**

SikaForce®-420 L45 is a high viscous 2-component polyurethane adhesive for assembling sandwich panels and similar constructions of various materials.

SikaForce®-420 L45 is tested according to FTP Code system and approved according to the IMO Marine Equipment Directives.

PRODUCT BENEFITS

- Non sagging
- IMO approved
- Good gap filling properties
- Solvent free

AREAS OF APPLICATION

SikaForce®-420 L45 is used primarily for assembling of profiles and sandwich constructions of e.g. glass fiber reinforced plastic, wood, metal, ceramic materials and pre-treated plastic materials.

This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed, ensuring adhesion and material compatibility.

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CURE MECHANISM

The curing of SikaForce®-420 L45 takes place by a chemical reaction of the two components. Higher temperatures speed up the curing process and lower slow it down.

CHEMICAL RESISTANCE

In case of chemical or thermal exposure, conduct project related testing.

METHOD OF APPLICATION

Surface preparation

Surfaces must be clean, dry and free from grease, oil, dust and contaminants. After the cleaning process, a physical or chemical pre-treatment might be required, depending on surface and type of material. The type of pre-treatment must be determined by tests.

Application

Volume and positioning of the adhesive must be defined in a way, that the intended gap is sufficiently filled after joining the parts. The specific applied quantity and position must be determined by tests.

The procedure for manual application is as follows: Ensure that the A-component is stirred thoroughly to avoid any sediment or separation, taking care not to stir too vigorously as this may introduce air into the product. Add the B-component in the specified ratio and stir thoroughly, ensuring a homogeneous mixture is achieved.

Apply before reaching half of the pot-life and join parts together within the open time. Consider that, if mixed in larger amounts, the exothermic reaction can reduce the pot-life and open time significantly.

For dual cartridges static mixer MFHX 08-24T or MFHX 10-24T has to be used. For automated applications, contact the System Engineering Department of Sika Industry.

Pressing

An adequate bonding pressure is necessary to obtain a voidless contact between the substrates and the adhesive. The specific pressure is, however, dependent on the core material and must be determined by tests. The pressure must always be below the maximum compressive strength of the core. After starting the press process, do not release the pressure until the press time has elapsed.

Removal

Uncured SikaForce®-420 L45 may be removed from tools and equipment with SikaForce®-096 Cleaner. Once cured, the material can only be removed mechanically.

Hands and exposed skin have to be washed immediately using hand wipes such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

STORAGE CONDITIONS

SikaForce®-420 L45 has to be kept between 10 °C and 30 °C in a dry place. Do not expose it to direct sunlight or frost. After opening of the packaging, the content has to be protected against humidity.

The lowest allowed temperature during transportation is -20 °C for max. 7 days.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Safety Data Sheets

BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

DISCLAIMER

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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